

PATENT
Serial No. 09/923,610
Amendment in Reply to Final Office Action mailed on January 17, 2006

REMARKS

This Amendment is being filed in response to the Final Office Action dated January 17, 2006, which has been reviewed and carefully considered. Claim 4 has been canceled without prejudice, and claims 1 and 7-8 have been amended. Claims 1-3, 5 and 7-9 are pending in this application, with claims 1 and 7-8 being the only independent claims. Reconsideration of this application and entry of the present amendment are respectfully requested.

In the Final Office Action, claims 1-5 and 7-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. 6,292,778 (Sukkar) in view of U.S. 6,567,778 (Chao Chang). In response, claim 4 has been canceled without prejudice and its features included in independent claims 1 and 7-8. Accordingly, no new issues requiring a new search have been introduced and entry of the present amendment is respectfully requested. It is respectfully submitted that claims 1-3, 5 and 7-9 are patentable over Sukkar and Chao Chang for at least the following reasons.

Sukkar is directed to a task-independent utterance

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verification with subword-based minimum verification error training. A recognition component 312 recognizes individual subwords in the input speed. A work lexicon database of the recognition component 312 contains a data structure describing various pronunciations, in terms of subword symbols, of each word in the system's vocabulary. In conjunction with recognizing a string of subword sounds from the sampled speech, the recognition component 312 consults the lexicon database 318 to determine a word, phrase or sentence in its vocabulary that most likely corresponds to the input speed.

In rejecting claim 4 on page 9 of the Final Office Action, the Examiner correctly noted that there is no teaching or suggestion in Sukkar of not taking into account certain words defined a priori when a word sequence hypothesis is compared with entries of the database. Column 6, line 50 to column 7, line 14 of Chao Chang is cited in an attempt to remedy this deficiency in Sukkar.

Chao Chang is directed to a natural language speech recognition using slot semantic confidence scores related to their word recognition confidence scores. As recited on column 5, lines 50-56 referring to FIG 1, in step 104, a speech recognizer examines

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the input speech, identifies each word, and assign a word confidence score to each recognized word. In particular, column 5, lines 50-52 specifically recites:

The speech recognizer examines the input speech and makes a conventional determination as to the identity of each word in the input stream in the step 104. (Emphasis added)

The output of the recognized words along with their associated word confidence scores are provided to a natural language interpreter in step 106.

In step 106, as recited on column 6, lines 39-44, the natural language interpreter forms slots and, in step 108, determines which words are in each slot. In step 110, the word confidence scores are combined for all the words in a slot to form a slot confidence score.

As recited on column 6, line 65, to column 7, line 15, the natural language interpreter could fill the slots with actual words. Then smaller subsets of words are systematically sent to the natural language interpreter. The smallest subset of words that can still generate the same slot values are identified as necessary words, such as the identified words of International

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Business Machines generates IBM, same as International Business Machines Incorporated.

As is evident from the aforementioned and the more detailed description given in Chao Chang, it is respectfully submitted that Chao Chang involves generating results, such as IBM, from identified words which are identified by the speech recognizer that examines each word of the input speech and presumably compares each word of the input speech with vocabulary stored in a database.

In stark contrast, the present invention as recited in independent claims 1 and 7-8, amongst other patentable features, requires:

wherein certain words defined a priori are not taken into account when a word sequence hypothesis is compared with entries of the database. (Emphasis added)

Any determination of necessary words does not negate the fact that each word of the input speech is examined and compared by the speech recognizer. Rather, the determination of necessary words is based on the words that are identified by the speech recognizer, which identifies each word of the input speech, and thus teaches away from not taken into account certain words defined a priori

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when a word sequence hypothesis is compared with entries of the database, as recited in independent claims 1 and 7-8.

It is respectfully submitted that Sukkar and Chao Chang, alone or in combination, do not teach or suggest that "certain words defined a priori are not taken into account when a word sequence hypothesis is compared with entries of the database," as recited in independent claims 1 and 7-8.

Accordingly, it is respectfully requested that independent claims 1 and 7-8 be allowed. In addition, it is respectfully submitted that claims 2-3, 5 and 9 should also be allowed at least based on their dependence from independent claims 1 and 8.

In addition, Applicant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

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It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required for entrance of the accompanying amendment, they may be charged to Applicant's representatives Deposit Account No. 50-3649. In addition, please credit any overpayments related to any fees paid in connection with the accompanying amendment to Deposit Account No. 50-3649.

In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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